

Serial No. 10/716,756

REMARKS

This amendment is responsive to the office action dated February 23, 2005.

Claims 1-11 were pending in the application. Claims 1-11 were rejected. No claims were allowed.

By way of this amendment, Claims 1, 4 and 7-9 have been amended. Claims 2, 3, 5, 6, 10 and 11 remain unchanged. Claims 12-16 are newly added.

Accordingly, Claims 1-16 are currently pending.

I. REJECTION OF CLAIMS UNDER 35 USC 102

Claims 1, 3, 6, 7-9 and 11 were rejected under 35 USC 102(b), as being anticipated by US Patent No. 1,990,504 (Stimson). The rejection stated that Stimson discloses a mounting board with an upper and lower side, a lighting element having an output end and first and second contact leads, the lighting element mounted to the first side of the mounting board, a first electrical contact concentric to the lighting element in thermal and electrical communication with the first contact on the lighting element, a second electrical contact on the mounting board in electrical communication with the second contact on the lighting element and a receiver sleeve having a tail section received around the output end of the lighting element to form an electrical path and a thermal path from the light source and that since Stimson discloses every element of the present invention, the claims of the present application are anticipated and therefore not patentable.

The device of the present application, in the claims as amended, requires that the lighting element be a solid-state lighting element. There is absolutely no disclosure in the Stimson reference regarding the use of a solid-state lighting element. Further, the claims as amended require that the board component be a circuit board with a first and second surface wherein the first and second contacts are formed directly onto the surface of the circuit board. This is a departure from the assembled mounting board wherein the electrical contacts are placed onto a board and riveted in place. The present invention offers great economies in assembly and manufacturability as compared to the structure disclosed in Stimson.

Serial No. 10/716,756

In addition to the above differences, the Applicant asserts that the structural elements of Stimson have been misapplied. The Examiner has stated that a first electrical contact (58 and 60) is formed on the upper surface of the mounting board. However, electricity in the Stimson device travels up the conductive path 42 from the bottom battery contact, enters the reflector 48, and is transmitted into the helical portion of the light source. Elements 58 and 60 are a bridge element and supporting wall, respectively, that are fastened to an insulator 56, that only serve to receive and support the lamp socket and maintain the tail of the lamp in contact with the second electrical contact. Elements 58 and 60 serve no purpose in the circuit of the flashlight as required in the claims of the present invention. Specifically in Stimson, the conductive path from the rear of the battery extends upwardly along the housing, through the reflector and directly into the lamp.

In clear contrast, the present invention requires and includes specific claimed limitations wherein the electrically conductive path extends through the reflector, down into the concentric contact formed on the surface of the circuit board then into the electrical contact lead on the light source. Further, the claims of the present invention require that the output end of the light source be contained within the tail portion of the receiver sleeve. This particular arrangement serves to effectively capture and transfer the heat generated by the solid-state light source and transfer it away from the circuit board and the electronics mounted thereon. In essence, the receiver sleeve act as a heat sink / heat shield that fully isolates the entire light source from the electronic components and circuit board.

Since the present invention, in the claims as amended, recites subject matter that is not disclosed in Stimson, the cited Stimson cannot anticipate the present invention as required under §102 and therefore the rejection is not believed to be applicable. Reconsideration, and withdrawal of the rejection is respectfully solicited.

II. REJECTION OF CLAIMS UNDER 35 USC 103

Claims 2 and 10 were rejected under 35 USC 103(a) as being unpatentable over Stimson in view of US Patent No. 6,168,288 (St. Claire). The Examiner has stated that

Serial No. 10/716,756

although Stimson does not disclose the light source as being a light emitting diode, St. Claire discloses an LED lighting element and that the present invention is obvious in light of the combination of these references.

As stated above in the comments related Stimson alone, the present invention is different than the Stimson reference in several critical ways. First, the conductivity path included in the claims of the present invention is different than the conductivity path in Stimson. Specifically in Stimson, the conductive path from the rear of the battery extends upwardly along the housing, through the reflector and directly into the lamp. In clear contrast, the present invention requires and includes specific claimed limitations wherein the electrically conductive path extends through the reflector, down into the concentric contact formed on the surface of the circuit board then into the electrical contact lead on the light source. Further, the claims of the present invention require that the output end of the light source be contained within the tail portion of the receiver sleeve. This particular arrangement serves to effectively capture and transfer the heat generated by the solid-state light source and transfer it away from the circuit board and the electronics mounted thereon. In essence, the receiver sleeve act as a heat sink / heat shield that fully isolates the entire light source from the electronic components and circuit board.

The simple addition of the St. Claire disclosure regarding the use of an LED lighting element does not serve to overcome the other structural differences. Therefore, even should the Stimson and St. Claire references be combined as provided by the Examiner, the present invention in the claims as amended simply would not be disclosed for at least the reasons set forth above. Since the cited combination does not produce the device of the present invention in the claims as amended, the combination cannot render the present invention obvious under §103. Reconsideration and withdrawal of this rejection is respectfully solicited.

Claims 4 and 5 were rejected under 35 USC 103(a) as being unpatentable over Stimson in view of US Patent No. 6,160,355 (Yee). The Examiner has stated that although Stimson does not disclose control circuitry on the circuit board, Yee discloses

Serial No. 10/716,756

control circuitry mounted on the upper side of the circuit board adjacent the LED and that the present invention is obvious in light of the combination of these references.

As stated above in the comments related Stimson alone, the present invention is different than the Stimson reference in several critical ways. First, the conductivity path included in the claims of the present invention is different than the conductivity path in Stimson. Specifically in Stimson, the conductive path from the rear of the battery extends upwardly along the housing, through the reflector and directly into the lamp. In clear contrast, the present invention requires and includes specific claimed limitations wherein the electrically conductive path extends through the reflector, down into the concentric contact formed on the surface of the circuit board then into the electrical contact lead on the light source. Further, the claims of the present invention require that the output end of the light source be contained within the tail portion of the receiver sleeve. This particular arrangement serves to effectively capture and transfer the heat generated by the solid-state light source and transfer it away from the circuit board and the electronics mounted thereon. In essence, the receiver sleeve act as a heat sink / heat shield that fully isolates the entire light source from the electronic components and circuit board.

The simple addition of the Yee disclosure regarding the use of control circuitry on connection with an LED lighting element does not serve to overcome the other structural differences. Further, even if the Yee and Stimson disclosures were combined, there would be no heat shield in the form of the receiver sleeve positioned between the LED and the control circuitry. Therefore, even should the Stimson and Yee references be combined as provided by the Examiner, the present invention in the claims as amended simply would not be disclosed for at least the reasons set forth above. Since the cited combination does not produce the device of the present invention in the claims as amended, the combination cannot render the present invention obvious under §103. Reconsideration and withdrawal of this rejection is respectfully solicited.

III. CONCLUSION

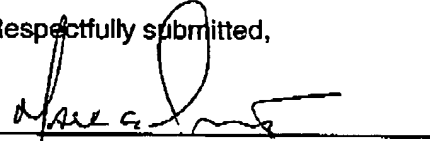
Accordingly, claims 1-16 are believed to be in condition for allowance and the application ready for issue.

Serial No. 10/716,756

Corresponding action is respectfully solicited.

PTO is authorized to charge any additional fees incurred as a result of the filing hereof or credit any overpayment to our account #02-0900.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark E. Tetreault', is written over a horizontal line.

Mark E. Tetreault, Esq.
Reg. No. 48,289

BARLOW, JOSEPHS & HOLMES, Ltd.
101 Dyer Street, 5th Floor
Providence, RI 02903
(401) 273-4446 (tel)
(401) 273-4447 (fax)
met@barjos.com